

```

      Set  Items  Description
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? e au=krieg, ar?

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Ref  Items  Index-term
E1   1      AU=KRI EG  ANDREAS H.
E2   1      AU=KRI EG  ANJA
E3   0      AU=KRI EG  AR?
E4   1      AU=KRI EG  ARI BERT
E5   7      AU=KRI EG  ARTHUR
E6   1      AU=KRI EG  ARTHUR F.
E7   11     AU=KRI EG  ARTHUR F.
E8   64     AU=KRI EG  ARTHUR M.
E9   251    AU=KRI EG  ARTHUR M.
E10  2      AU=KRI EG  B.
E11  249    AU=KRI EG  B.
E12  4      AU=KRI EG  B. L.

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Enter P or PAGE for more

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? s e1-e12
      1      AU=KRI EG  ANDREAS H.
      1      AU=KRI EG  ANJA
      0      AU=KRI EG  AR?
      1      AU=KRI EG  ARI BERT
      7      AU=KRI EG  ARTHUR
      1      AU=KRI EG  ARTHUR F.
      11     AU=KRI EG  ARTHUR F.
      64     AU=KRI EG  ARTHUR M.
      251    AU=KRI EG  ARTHUR M.
      2      AU=KRI EG  B.
      249    AU=KRI EG  B.
      4      AU=KRI EG  B. L.
S1   592    E1-E12
? s s1 and tcgtcggttttgacgttttgcgtt
      592    S1
      2      TCGTGGTTTTGAAGTTTTGTGGTT
S2   0      S1 AND TCGTGGTTTTGAAGTTTTGTGGTT
? s s1 and phosphodi ester
      592    S1
      37178  PHOSPHODI ESTER
S3   13     S1 AND PHOSPHODI ESTER
? rd

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>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

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S4   11     RD (unique items)

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>>>KWC option is not available in file(s): 399

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4/3, K/1      (Item 1 from file: 98)
DI ALCOG R) File 98: General Sci Abs
(c) 2009 The HW Wilson Co. All rts. reserv.

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02515609 H. W. WILSON RECORD NUMBER: BGS193015609  
 Modification of antisense phosphodiester oligodeoxynucleotides by a  
 5' cholesterol moiety increases cellular association and improves  
 efficacy.

Krieg, Arthur M.  
 Tonkinson, John; Matson, Sara

10644052cpg.txt

Proceedings of the National Academy of Sciences of the United States of America (Proc Natl Acad Sci U S A) v. 90 (Feb. 1 '93) p. 1048-52  
SPECIAL FEATURES: bibli ISSN: 0027-8424  
LANGUAGE: English  
COUNTRY OF PUBLICATION: United States

Modification of antisense phosphodiester oligodeoxynucleotides by a 5' cholesterol moiety increases cellular association and improves efficacy.

Krieg, Arthur M

4/3, K/2 (Item 1 from file: 399)

DI ALOC(R) File 399: CA SEARCH(R)

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150258230 CA: 150(13)258230u PATENT

Combination motif immune stimulatory oligonucleotides with improved activity

INVENTOR(AUTHOR): Uhlmann, Eugen; Krieg, Arthur M; Hanson, Douglas Charles; Samulowitz, Ulrike

LOCATION: USA

ASSIGNEE: Pfizer Inc.; Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 200922215 A1 DATE: 20090219

APPLICATION: WO 2008182102 (20080805) \*US 2007PV964477 (20070813)

PAGES: 73pp. CODEN: P1XXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

IPC/8 + Level Value Position Status Version Action Source Office:

A61K-0031/7088 A I F B 20060101 H EP

C12N-0015/11 A I L B 20060101 H EP

DESIGNATED COUNTRIES: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MX; MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG; SK; SL; SM; ST; SV; SY; TJ; TM; TN; TR DESIGNATED REGIONAL: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV; MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

4/3, K/3 (Item 2 from file: 399)

DI ALOC(R) File 399: CA SEARCH(R)

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145291047 CA: 145(15)291047 PATENT

Immunostimulatory oligonucleotides with stabilized internucleotide linkage for treating cancer, allergy, asthma and infection

INVENTOR(AUTHOR): Krieg, Arthur M; Samulowitz, Ulrike; Vollmer, Joerg

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 20061915 A2 DATE: 20060831

APPLICATION: WO 2006US6778 (20060224) \*US 2005PV655931 (20050224)

PAGES: 93pp. CODEN: P1XXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

CLASS: A61K-000/A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; LY; MA; MD; ME; MG; MK; MN; MW; MX; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TJ; TM; TN; TR;

10644052cpg.txt

TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA DESIGNATED REGIONAL: AT; BE; BG; CH;  
CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC;  
NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; OM; GA; GN; GQ; GW; ML;  
MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM;  
ZW AM AZ; BY; KG; KZ; MD; RU; TJ; TM

4/3, K/4 (Item 3 from file: 399)

DI ALCOFF File 399: CA SEARCH(R)

(c) 2009 American Chemical Society. All rts. reserv.

142462266 CA: 142(25)462266z PATENT

CoG immunostimulatory nucleic acids and oligonucleotide analogs for  
enhancing immune response of vaccines against infection, allergy and  
cancer

INVENTOR(AUTHOR): Uhlmann, Eugen; Vollmer, Joerg; Krieg, Arthur M; Noll,  
Bernhard O

LOCATIONS: Germany,

ASSIGNEE: Coley Pharmaceutical G.m.b.H.; Coley Pharmaceutical Group, Inc.

PATENT: PCT International; WO 200542018 A2 DATE: 20050512

APPLICATION: WO 2004US36240 (20041029) \*US 2003PV516193 (20031030)

PAGES: 113 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

CLASS: A61K-039/39A; A61P-031/00B; A61P-037/08B; A61P-035/00B

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;  
BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;  
GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS;  
LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL;  
PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US;  
UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ;  
NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT;  
BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL;  
PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; OM; GA; GN; GQ; GW; ML; MR;  
NE; SN; TD; TG

4/3, K/5 (Item 4 from file: 399)

DI ALCOFF File 399: CA SEARCH(R)

(c) 2009 American Chemical Society. All rts. reserv.

142372464 CA: 142(20)372464h PATENT

Compositions comprising immunostimulatory nucleic acid-lipophilic  
conjugates and antigen or therapeutic agent for treating allergy, cancer,  
infection and autoimmune disease

INVENTOR(AUTHOR): Vollmer, Joerg; Krieg, Arthur M; Uhlmann, Eugen

LOCATIONS: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 200530259 A2 DATE: 20050407

APPLICATION: WO 2004US31748 (20040927) \*US 2003PV505977 (20030925)

PAGES: 120 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

CLASS: A61K-047/48A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;  
BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;  
GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS;  
LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL;  
PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US;  
UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ;  
NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT;  
BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL;  
PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; OM; GA; GN; GQ; GW; ML; MR;  
NE; SN; TD; TG

4/3, K/6 (Item 5 from file: 399)

DI ALCOG R) File 399: CA SEARCH R)

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140230578 CA: 140(15)230578h PATENT

Sequences of immunostimulatory oligonucleotides and therapeutic use for immune related diseases

INVENTOR(AUTHOR): Krieg, Arthur M.; Samulowitz, Ulrike; Vollmer, Joerg; Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GrbH

PATENT: PCT International ; WO 200416805 A2 DATE: 20040226

APPLICATION: WO 2003US25935 (20030819) \*US PV404479 (20020819) \*US

PV404820 (20020819) \*US PV429701 (20021127) \*US PV447377 (20030214)

PAGES: 276 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATION:

CLASS: C12Q 000/ A

DESIGNATED COUNTRY ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MY; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

4/3, K/7 (Item 6 from file: 399)

DI ALCOG R) File 399: CA SEARCH R)

(c) 2009 American Chemical Society. All rts. reserv.

138203655 CA: 138(14)203655h PATENT

Oligonucleotides containing stimulatory phosphorothioate motif and neutralizing motif for treating infections, allergies and cancers

INVENTOR(AUTHOR): Krieg, Arthur M.; Vollmer, Joerg; Uhlmann, Eugen

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH ; University of Iowa Research Foundation

PATENT: PCT International ; WO 200315711 A2 DATE: 20030227

APPLICATION: WO 2002US26468 (20020819) \*US PV313273 (20010817) \*US

PV393952 (20020703)

PAGES: 115 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATION:

CLASS: A61K 000/ A

DESIGNATED COUNTRY ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MY; NI; NO; NZ; OM; PH; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

4/3, K/8 (Item 7 from file: 399)

DI ALCOG R) File 399: CA SEARCH R)

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135018544 CA: 135(2)18544w PATENT

Immunostimulatory nucleic acid molecules

10644052cpg.txt

INVENTOR(AUTHOR): Krieg, Arthur M.; Kline, Joel N.  
LOCATION: USA  
ASSIGNEE: University of Iowa Research Foundation; Coley Pharmaceutical Group, Inc.; United States Dept. of Health and Human Services  
PATENT: United States; US 6239116 B1 DATE: 20010529  
APPLICATION: US 960774 (19971030) \*US 738652 (19961030)  
PAGES: 74 pp., Cont.-in-part of U.S. Ser. No. 738,652. CODEN: USXXAM  
LANGUAGE: English  
PATENT CLASSIFICATIONS:  
CLASS: 514044000; A61P-037/06A

4/3, K/9 (Item 8 from file: 399)

DIALOG(R) File 399: CA SEARCH(R)

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133349133 CA: 133(25)349133e PATENT  
Screening for immunostimulatory DNA functional modifiers  
INVENTOR(AUTHOR): Noll, Bernhard Q.; Schetter, Christian; Krieg, Arthur M.  
LOCATION: Germany.  
ASSIGNEE: CPG Immunopharmaceuticals Gmb.H.; University of Iowa Research Foundation  
PATENT: PCT International; WO 200067023 A1 DATE: 20001109  
APPLICATION: WO 2000US11697 (20000428) \*US PV131830 (19990429) \*US  
PV186845 (20000303)  
PAGES: 95 pp. CODEN: P1XXD2 LANGUAGE: English  
PATENT CLASSIFICATIONS:  
CLASS: G01N-033/50A; G01N-033/68B; C12Q-001/68B; C07K-014/47B  
DESIGNATED COUNTRIES: AE; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH;  
CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID;  
IL; IN; IS; JP; KE; KG; KP; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG;  
MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR;  
TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM  
DESIGNATED REGIONAL: GH; GM; KE; LS; MW; SD; SL; SZ; TZ; UG; ZW AT; BE;  
CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF;  
CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

4/3, K/10 (Item 9 from file: 399)

DIALOG(R) File 399: CA SEARCH(R)

(c) 2009 American Chemical Society. All rts. reserv.

123274918 CA: 123(21)274918x CONFERENCE PROCEEDING  
Uptake and localization of phosphodiester and chimeric  
oligodeoxynucleotides in normal and leukemic primary cells  
AUTHOR(S): Krieg, Arthur M.  
LOCATION: Department Internal Medicine, University Iowa, Iowa, IA, USA  
JOURNAL: Delivery Strategies Antisense Oligonucleotide Ther. EDITOR:  
Akhtar, Saghir (Ed), DATE: 1995 PAGES: 177-90 CODEN: 61RXAX LANGUAGE:  
English PUBLISHER: CRC, Boca Raton, Fla

4/3, K/11 (Item 10 from file: 399)

DIALOG(R) File 399: CA SEARCH(R)

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119173523 CA: 119(17)173523b JOURNAL  
Comparison of cellular binding and uptake of antisense phosphodiester,  
phosphorothioate, and mixed phosphorothioate and methylphosphonate  
oligonucleotides  
AUTHOR(S): Zhao, Qiyuan; Matson, Sara; Herrera, Charles J.; Fisher, Eric;  
Yu, Hong; Krieg, Arthur M.  
LOCATION: Coll. Med., Univ. Iowa, Iowa City, IA, USA  
Page 5

JOURNAL: Antisense Res. Dev. DATE: 1993 VOLUME: 3 NUMBER: 1 PAGES:  
 53-66 CODEN: AREDEI ISSN: 1050-5261 LANGUAGE: English  
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Set	Items	Description
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S3	13	S1 AND PHOSPHODI ESTER
S4	11	RD (unique items)

? e au=samul owitz, urike?

Ref	Items	Index-term
E1	4	AU=SAMULOW TZ, U
E2	25	AU=SAMULOW TZ, ULRI KE
E3	0	*AU=SAMULOW TZ, URI KE?
E4	1	AU=SAMULOWSKA, BARBARA
E5	2	AU=SAMULOWSKI, W
E6	1	AU=SAMULS S
E7	1	AU=SAMULSEN, DM
E8	3	AU=SAMULSKA EWA
E9	2	AU=SAMULSKA H
E10	2	AU=SAMULSKA H M
E11	2	AU=SAMULSKA HANNA
E12	2	AU=SAMULSKA J

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 ? e au=samul owitz, ulrik?

Ref	Items	Index-term
E1	1	AU=SAMULOW TZ, M CHAEL
E2	4	AU=SAMULOW TZ, U
E3	0	*AU=SAMULOW TZ, ULRI K?
E4	25	AU=SAMULOW TZ, ULRI KE
E5	1	AU=SAMULOWSKA, BARBARA
E6	2	AU=SAMULOWSKI, W
E7	1	AU=SAMULS S
E8	1	AU=SAMULSEN, DM
E9	3	AU=SAMULSKA EWA
E10	2	AU=SAMULSKA H
E11	2	AU=SAMULSKA H M
E12	2	AU=SAMULSKA HANNA

Enter P or PAGE for more  
 ?  
 ? s e4  
     S5       25 AU= SAMULOW TZ, ULRI KE  
 ? s s5 and phosphodi ester  
     25       S5  
     37178   PHOSPHODI ESTER  
     S6       3   S5 AND PHOSPHODI ESTER  
 ? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.  
     S7       3   RD (unique items)

? t s7/3, k/1-3

>>>KW C option is not available in file(s): 399

7/3, K/1       (Item 1 from file: 399)  
 DI ALCG (R) File 399: CA SEARCH(R)

(c) 2009 American Chemical Society. All rts. reserv.

150258230 CA: 150(13)258230u PATENT

Combination motif immune stimulatory oligonucleotides with improved activity

INVENTOR(AUTHOR): Uhlmann, Eugen; Krieg, Arthur M; Hanson, Douglas Charles; Samulowitz, Ulrike

LOCATION: USA

ASSIGNEE: Pfizer Inc.; Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 200922215 A1 DATE: 20090219

APPLICATION: WO 20081 B2102 (20080805) \*US 2007PV964477 (20070813)

PAGES: 73pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

IPC/8 + Level Value Position Status Version Action Source Office:

A61K-0031/7088 A I F B 20060101 H EP

G12N-0015/11 A I L B 20060101 H EP

DESIGNATED COUNTRIES: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MX; MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG; SK; SL; SM; ST; SV; SY; TJ; TM; TN; TR DESIGNATED REGIONAL: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV; MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

7/3, K/2 (Item 2 from file: 399)

DI ALCOPI File 399: CA SEARCH(R)

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145291047 CA: 145(15)291047j PATENT

Immunostimulatory oligonucleotides with stabilized internucleotide linkage for treating cancer, allergy, asthma and infection

INVENTOR(AUTHOR): Krieg, Arthur M; Samulowitz, Ulrike; Vollmer, Joerg

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 200691915 A2 DATE: 20060831

APPLICATION: WO 2006US6778 (20060224) \*US 2005PV655931 (20050224)

PAGES: 93pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

CLASS: A61K-000/A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; LY; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA DESIGNATED REGIONAL: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

7/3, K/3 (Item 3 from file: 399)

DI ALCOPI File 399: CA SEARCH(R)

(c) 2009 American Chemical Society. All rts. reserv.

140230578 CA: 140(15)230578h PATENT

Sequences of immunostimulatory oligonucleotides and therapeutic use for immune related diseases

INVENTOR(AUTHOR): Krieg, Arthur M.; Samulowitz, Ulrike; Vollmer, Joerg;  
 Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert  
 LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GrbH

PATENT: PCT International ; WO 200416805 A2 DATE: 20040226

APPLICATION: WO 2003US25935 (20030819) \*US PV404479 (20020819) \*US

PV404820 (20020819) \*US PV429701 (20021127) \*US PV447377 (20030214)

PAGES: 276 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATION:

CLASS: C12Q 000/ A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
 CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
 GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
 LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU;  
 SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU;  
 ZA; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE  
 ; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW AT; BE; BG; CH; CY; CZ; DE; DK;  
 EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF;  
 BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG  
 ? e au=vollmer, j?

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E2	1	AU=VOLLMER, J-Y
E3	0	*AU=VOLLMER, J?
E4	1	AU=VOLLMER, JAMES
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E7	2	AU=VOLLMER, JAMES M CHAEL
E8	1	AU=VOLLMER, JANI CE
E9	1	AU=VOLLMER, JANS JUERGEN
E10	2	AU=VOLLMER, JASON
E11	1	AU=VOLLMER, JEAN P.
E12	3	AU=VOLLMER, JEAN PIERRE

Enter P or PAGE for more

? e au=vollmer, jorg

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E1	1	AU=VOLLMER, JOHN JOCHEN
E2	8	AU=VOLLMER, JOHN W
E3	24	*AU=VOLLMER, JORG
E4	1	AU=VOLLMER, JORG HEI NZ
E5	1	AU=VOLLMER, JOSEPH
E6	2	AU=VOLLMER, JOSEPH G
E7	2	AU=VOLLMER, JOSEPH GERARD
E8	1	AU=VOLLMER, JOSEPH H.
E9	1	AU=VOLLMER, JOSEPH HARRY
E10	3	AU=VOLLMER, JR., H. D.
E11	3	AU=VOLLMER, JUDITH
E12	15	AU=VOLLMER, JUERGEN

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? s e3-e4

24 AU=VOLLMER, JORG  
 1 AU=VOLLMER, JORG HEI NZ

S8 25 E3-E4

? s s8 and phosphodi ester

25 S8  
 37178 PHOSPHODI ESTER

S9 1 S8 AND PHOSPHODI ESTER

? rd



>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S10 1 RD (unique items)

? t s10/3,k/1

>>>KWC option is not available in file(s): 399

10/3,K/1 (Item 1 from file: 399)

DI ALCOG R) File 399: CA SEARCH(R)

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138203655 CA: 138(14)203655h PATENT

Oligonucleotides containing stimulatory phosphorothioate motif and neutralizing motif for treating infections, allergies and cancers

INVENTOR(AUTHOR): Krieg, Arthur M; Vollmer, Jorg; Uhlman, Eugen

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical Gmb.H

; University of Iowa Research Foundation

PATENT: PCT International; WO 200315711 A2 DATE: 20030227

APPLICATI ON: WO 2002US26468 (20020819) \*US PV313273 (20010817) \*US

PV393952 (20020703)

PAGES: 115 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFI CATIONS:

CLASS: A61K 000/ A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;

CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;

GM; GR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;

LV; MA; MD; MG; MK; MN; MW; MX; ME; NO; NZ; OM; PH; PL; PT; RO; RU; SD; SE;

SG; SI; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW; AM; AZ;

BY; BG; BZ; BR; BY; BZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR;

GB; GR; IE; IT; LU; MC; NL; PT; SE; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN;

GQ; GW; ML; MR; NE; SN; TD; TG

? e au=uhlmann, eugen?

Ref	Items	Index-term
E1	565	AU=UHLMANN, EUGEN
E2	2	AU=UHLMANN, EUGEN DR
E3	0	*AU=UHLMANN, EUGEN?
E4	1	AU=UHLMANN, EUGENE
E5	3	AU=UHLMANN, EUGENI E V
E6	8	AU=UHLMANN, EUGENI E V.
E7	2	AU=UHLMANN, EUGENI E VI CTORIA
E8	32	AU=UHLMANN, F
E9	8	AU=UHLMANN, F H
E10	2	AU=UHLMANN, F HERMANN
E11	114	AU=UHLMANN, F.
E12	3	AU=UHLMANN, F. H

Enter P or PAGE for more

? s e1-e3

565 AU=UHLMANN, EUGEN  
2 AU=UHLMANN, EUGEN DR  
0 AU=UHLMANN, EUGEN?

S11

567 E1-E3

? s s11 and phosphodiester

567 S11

37178 PHOSPHODI ESTER

S12

8 S11 AND PHOSPHODI ESTER

? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S13 8 RD (unique items)

? t s13/3, k/1-8

>>>KWC option is not available in file(s): 399

13/3, K/1 (Item 1 from file: 393)

DI ALCOG R) File 393: Beilstein Database - Abstracts

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Beilstein Abstract Id: 6219964

Title: Influence of the Type of Junction in DNA-3'-Peptide Nucleic Acid (PNA) Chimeras on Their Binding Affinity to DNA and RNA

Document Type: Journal Record Type: Abstract

Author: Greiner, Beate; Breipohl, Gerhard; Uhlmann, Eugen

Citation: Helv. Chim. Acta (1999) Series: 82-12, 2151 - 2159 CODEN: HCACAV

Language: English

Abstract Language: English

Author: Greiner, Beate; Breipohl, Gerhard; Uhlmann, Eugen

... Abstract: duplex stabilization was determined to be in the order Q > S > ca. NH<sub>2</sub> reordering the phosphodiester bridge the most favored linkage at the DNA/PNA junction. The observed strong duplex-destabilizing...

13/3, K/2 (Item 2 from file: 393)

DI ALCOG R) File 393: Beilstein Database - Abstracts

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Beilstein Abstract Id: 5780737

Title: Nucleotide. XV. Synthese und Eigenschaften von 2'-O-t-Butyldimethylsilyl-5'-O-monomethoxytritylribonucleosid-3'-phosphodiestern, Ausgangssubstanzen fuer Oligonucleotid-Synthesen

Document Type: Journal Record Type: Abstract

Author: Silber, Gunter; Flockerzi, Dieter; Varma, Rajendra Singh;

Charubala, Ramamurthy; Uhlmann, Eugen; Pfeleiderer,

Volfgang

Citation: Helv. Chim. Acta (1981) Series: 64-5, 1704-1716 CODEN: HCACAV

Language: German

Abstract Language: English

Author: Silber, Gunter; Flockerzi, Dieter; Varma, Rajendra Singh;

Charubala, Ramamurthy; Uhlmann, Eugen; Pfeleiderer,

Volfgang

... Abstract: 15-23 with free HO-C(5') could be obtained by detritylation and the 3'-phosphodiester triethylammonium salts 24-32 by deblocking of the cyanoethyl and the 2,5-dichlorophenyl group...

13/3, K/3 (Item 1 from file: 399)

DI ALCOG R) File 399: CA SEARCH(R)

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150258230 CA: 150(13)258230u PATENT

Combination motif immune stimulatory oligonucleotides with improved activity

INVENTOR(AUTHOR): Uhlmann, Eugen; Krieg, Arthur M.; Hanson, Douglas

Charles; Samulowitz, Ulrike

LOCATI ON: USA

ASSIGNEE: Pfizer Inc.; Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International ; WO 200922215 A1 DATE: 20090219

APPLICATI ON: WO 20081 B2102 (20080805) \*US 2007PV964477 (20070813)

PAGES: 73pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFI CATI ONS:

IPC/8 + Level	Value	Position	Status	Version	Action	Source	Office:
A61K-0031/7088	A I F B	20060101				H	EP
C12N-0015/11	A I L B	20060101				H	EP
DESI GNATED COUNTRI ES:	AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR;						
BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG; SK; SL; SM; ST; SV; SY; TJ; TM; TN; TR	DESI GNATED REGI ONAL:	AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV; MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW	AM; AZ; BY; KG; KZ; MD; RU; TJ; TM				

13/3, K/4 (Item 2 from file: 399)

DI ALCOG R) File 399: CA SEARCH(R)

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150001273 CA: 150(1)1273u PATENT

PCR sequences of oligoribonucleotides for disease treatment

INVENTOR(AUTHOR): Vollmer, Joerg; Uhlmann, Eugen

LOCATI ON: Germany

ASSIGNEE: Coley Pharmaceutical GmbH

PATENT: PCT International ; WO 2008139262 A2 DATE: 20081120

APPLICATI ON: WO 20071 B4593 (20071026) \*US 2006PV854585 (20061026)

PAGES: 110pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFI CATI ONS:

IPC/8 + Level	Value	Position	Status	Version	Action	Source	Office:
C12N-0015/11	A I F B	20060101				H	EP
A61K-0031/7088	A I L B	20060101				H	EP
C07H-0021/02	A I L B	20060101				H	EP
DESI GNATED COUNTRI ES:	AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BH; BR; BW;						
BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG; SK; SL; SM; SV; SY; TJ; TM; TN; TR; TZ	DESI GNATED REGI ONAL:	AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC; MT; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW	AM; AZ; BY; KG; KZ; MD; RU; TJ; TM				

13/3, K/5 (Item 3 from file: 399)

DI ALCOG R) File 399: CA SEARCH(R)

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142462266 CA: 142(25)462266z PATENT

Oligonucleotide analogs for enhancing immune response of vaccines against infection, allergy and cancer

INVENTOR(AUTHOR): Uhlmann, Eugen; Vollmer, Joerg; Krieg, Arthur M; Noll, Bernhard O

LOCATI ON: Germany

10644052cpg.txt

ASSIGNEE: Coley Pharmaceutical G.m.b.H.; Coley Pharmaceutical Group, Inc.

PATENT: PCT International; WO 200542018 A2 DATE: 20050512

APPLICATI ON: WO 2004US36240 (20041029) \*US 2003PV516193 (20031030)

PAGES: 113 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFI CATIONS:

CLASS: A61K-039/39A; A61P-031/00B; A61P-037/08B; A61P-035/00B

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;  
BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;  
GE; GH; GM; GR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS;  
LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL;  
PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TZ; UA; UG; US;  
UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ;  
NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT;  
BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL;  
PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR;  
NE; SN; TD; TG

13/3, K/6 (Item 4 from file: 399)

DI ALCOR File 399: CA SEARCH(R)

(c) 2009 American Chemical Society. All rts. reserv.

142372464 CA: 142(20)372464h PATENT

Compositions comprising immunostimulatory nucleic acid-lipophilic  
conjugates and antigen or therapeutic agent for treating allergy, cancer,  
infection and autoimmune disease

INVENTOR(AUTHOR): Vollmer, Joerg; Krieg, Arthur M; Uhlmann, Eugen

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 200530259 A2 DATE: 20050407

APPLICATI ON: WO 2004US31748 (20040927) \*US 2003PV505977 (20030925)

PAGES: 120 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFI CATIONS:

CLASS: A61K-047/48A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;  
BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;  
GE; GH; GM; GR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS;  
LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL;  
PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TZ; UA; UG; US;  
UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ;  
NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT;  
BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL;  
PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR;  
NE; SN; TD; TG

13/3, K/7 (Item 5 from file: 399)

DI ALCOR File 399: CA SEARCH(R)

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140230578 CA: 140(15)230578h PATENT

Sequences of immunostimulatory oligonucleotides and therapeutic use for  
immune related diseases

INVENTOR(AUTHOR): Krieg, Arthur M; Samulowitz, Ulrike; Vollmer, Joerg;

Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 200416805 A2 DATE: 20040226

APPLICATI ON: WO 2003US25935 (20030819) \*US PV404479 (20020819) \*US

PV404820 (20020819) \*US PV429701 (20021127) \*US PV447377 (20030214)

PAGES: 276 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFI CATIONS:

CLASS: C12Q-000/A

10644052cpq.txt

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU;  
SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU;  
ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GT; GM; KE;  
LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK;  
EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF;  
BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

13/3, K/8 (Item 6 from file: 399)  
DI ALCG R) File 399: CA SEARCH(R)  
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93114908 CA: 93(11)114908c JOURNAL  
New improvements in oligonucleotide synthesis by use of the  
p-nitrophenylethyl phosphate blocking group and its deprotection by DBU  
or DBN  
AUTHOR(S): Uhlmann, Eugen; Pfeleiderer, Wolfgang  
LOCATION: Fac. Chem., Univ. Konstanz, D-7750, Konstanz, Fed. Rep. Ger.  
JOURNAL: Tetrahedron Lett. DATE: 1980 VOLUME: 21 NUMBER: 13 PAGES:  
1181-4 CODEN: TELEAY ISSN: 0040-4039 LANGUAGE: English  
? e au=lipford, gr?

Ref	Items	Index-term
E1	44	AU=LI PFORD, GB
E2	3	AU=LI PFORD, GB*
E3	0	*AU=LI PFORD, GR?
E4	22	AU=LI PFORD, GRAYSON
E5	8	AU=LI PFORD, GRAYSON B
E6	63	AU=LI PFORD, GRAYSON B.
E7	2	AU=LI PFORD, GRAYSON BERNARD
E8	2	AU=LI PFORD, HEATHER
E9	1	AU=LI PFORD, HEATHER RICHTER
E10	3	AU=LI PFORD, J
E11	3	AU=LI PFORD, J.
E12	11	AU=LI PFORD, J. R.

Enter P or PAGE for more

? s e1-e6  
 44 AU=LI PFORD, GB  
 3 AU=LI PFORD, GB\*  
 0 AU=LI PFORD, GR?  
 22 AU=LI PFORD, GRAYSON  
 8 AU=LI PFORD, GRAYSON B  
 63 AU=LI PFORD, GRAYSON B.  
 S14 140 E1-E6  
 ? s s14 and phosphodiester  
 140 S14  
 37178 PHOSPHODIESTER  
 S15 2 S14 AND PHOSPHODIESTER  
 ? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S16 2 RD (unique items)

? t s16/3, k/1-2

>>>KWC option is not available in file(s): 399

10644052cpg.txt

16/3, K/1 (Item 1 from file: 24)  
DIALOG(R) File 24: CSA Life Sciences Abstracts  
(c) 2009 CSA. All rts. reserv.

0002855016 IP ACCESSION NO: 6931820  
Toll-like receptor 9 binds single-stranded CpG-DNA in a sequence- and pH-dependent manner

Rutz, Mark; Metzger, Jochen; Gellert, Tanja; Lippa, Peter; Lipford, Grayson B; Vægner, Hermann; Bauer, Stefan  
Institute for Medical Microbiology, Hygiene and Immunology, Munich, Germany, [mailto:stefan.bauer@rz.tum.de]

European Journal of Immunology, v 34, n 9, p 2541-2550, 2004  
PUBLICATION DATE: 2004

PUBLISHER: Wiley-VCH, Postfach 101161 Weinheim 69451 Germany,  
[mailto:info@wiley-vch.de], [URL: http://www.wiley-vch.de/publish/en/]

DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

ISSN: 0014-2980

FILE SEGMENT: Immunology Abstracts

Rutz, Mark; Metzger, Jochen; Gellert, Tanja; Lippa, Peter; Lipford, Grayson B; Vægner, Hermann; Bauer, Stefan

#### ABSTRACT:

... that TLR9 binds directly and sequence-specifically to single-stranded unmethylated CpG-DNA containing a phosphodiester backbone.  
TLR9-CpG-DNA interaction occurs at the acidic pH (6.5-5.0) found...

16/3, K/2 (Item 1 from file: 399)

DIALOG(R) File 399: CA SEARCH(R)  
(c) 2009 American Chemical Society. All rts. reserv.

140230578 CA: 140(15)230578h PATENT

Sequences of immunostimulatory oligonucleotides and therapeutic use for immune related diseases

INVENTOR(AUTHOR): Krieg, Arthur M; Samulowitz, Ulrike; Vollmer, Joerg;

Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 200416805 A2 DATE: 20040226

APPLICATION: WO 2003US25935 (20030819) \*US PV404479 (20020819) \*US

PV404820 (20020819) \*US PV429701 (20021127) \*US PV447377 (20030214)

PAGES: 276 pp. CODEN: P1XXD2 LANGUAGE: English

PATENT CLASSIFICATION:

CLASS: C12Q 000/A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YE; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GT; GM; KE; ; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG  
? e au=rankin, rob?

Ref	Items	Index-term
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E3	0	*AU=RANKI N, ROB?
E4	1	AU=RANKI N, ROBB E.
E5	23	AU=RANKI N, ROBERT
E6	4	AU=RANKI N, ROBERT A.
E7	5	AU=RANKI N, ROBERT A.
E8	1	AU=RANKI N, ROBERT C.
E9	1	AU=RANKI N, ROBERT CARTER
E10	1	AU=RANKI N, ROBERT EDWARD
E11	1	AU=RANKI N, ROBERT JOHN, JR.
E12	8	AU=RANKI N, ROBERT L.

Enter P or PAGE for more

? s e1-e12

7	AU=RANKI N, RN
2	AU=RANKI N, RN*
0	AU=RANKI N, ROB?
1	AU=RANKI N, ROBB E.
23	AU=RANKI N, ROBERT
4	AU=RANKI N, ROBERT A.
5	AU=RANKI N, ROBERT A.
1	AU=RANKI N, ROBERT C.
1	AU=RANKI N, ROBERT CARTER
1	AU=RANKI N, ROBERT EDWARD
1	AU=RANKI N, ROBERT JOHN, JR.
8	AU=RANKI N, ROBERT L.

S17

54 E1-E12

? rd

&gt;&gt;&gt;Duplicate detection is not supported for File 393.

&gt;&gt;&gt;Duplicate detection is not supported for File 391.

&gt;&gt;&gt;Records from unsupported files will be retained in the RD set.

S18 46 RD (unique items)

? s s18 and phosphodiester

46	S18
37178	PHOSPHODIESTER
1	S18 AND PHOSPHODIESTER

? rd

&gt;&gt;&gt;Duplicate detection is not supported for File 393.

&gt;&gt;&gt;Duplicate detection is not supported for File 391.

&gt;&gt;&gt;Records from unsupported files will be retained in the RD set.

S20 1 RD (unique items)

? t s20/3,k/1

&gt;&gt;&gt;KW C option is not available in file(s): 399

20/3,K/1 (Item 1 from file: 399)

DI ALCO (R) File 399: CA SEARCH (R)

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 Sequences of immunostimulatory oligonucleotides and therapeutic use for  
 immune related diseases  
 INVENTOR(AUTHOR): Krieg, Arthur M.; Samulowitz, Urike; Vollmer, Joerg;  
 Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert  
 LOCATION: USA  
 ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GrbH

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GM; GR; GU; HD; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU;  
SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU;  
ZA; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE  
; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW AT; BE; BG; CH; CY; CZ; DE; DK;  
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BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG